

529 Rec'd PCT/PT 03 NOV 2000

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FORM PTO-1190 (REV. 11-98)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER P/543-103	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 09/674600	
INTERNATIONAL APPLICATION NO. PCT/CH99/00184		INTERNATIONAL FILING DATE 4 May 1999		PRIORITY DATE CLAIMED 6 May 1998	
TITLE OF INVENTION MULTIFUNCTION TOOL					
APPLICANT(S) FOR DO/EO/US Lorenz CAMENZIND					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). - unsigned 10. <input checked="" type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). including amended pages Items 11. to 16. below concern document(s) or information included: 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 14. <input type="checkbox"/> A substitute specification. 15. <input type="checkbox"/> A change of power of attorney and/or address letter. 16. <input checked="" type="checkbox"/> Other items or information: 4 sheets of drawings Figs. 1-8b					
EXPRESS MAIL CERTIFICATE I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addresses (mail label EL075478430US in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on November 3, 2000 Dorothy Jenkins Name of Person Mailing Correspondence Signature November 3, 2000 Date of Signature					

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17. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):**

Neither international preliminary examination fee (37 CFR 1.482)
nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO
and International Search Report not prepared by the EPO or JPO... \$1,000.

International preliminary examination fee (37 CFR 1.482) not paid to
USPTO but International Search Report prepared by the EPO or JPO \$860.

International preliminary examination fee (37 CFR 1.482) not paid to USPTO
but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ... \$710.

International preliminary examination fee paid to USPTO (37 CFR 1.482)
but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.

International preliminary examination fee paid to USPTO (37 CFR 1.482)
and all claims satisfied provisions of PCT Article 33(1)-(4) ... \$100.

ENTER APPROPRIATE BASIC FEE AMOUNT =**CALCULATIONS PTO USE ONLY**

\$ 860.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30
months from the earliest claimed priority date (37 CFR 1.492(e)).

\$

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	23 - 20 =	3	X \$18.
Independent claims	2 - 3 =	0	X \$80.

\$ 54.00

\$

MULTIPLE DEPENDENT CLAIM(S) (if applicable)

- \$270.

\$

TOTAL OF ABOVE CALCULATIONS =

\$ 914.00

Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement
must also be filed (Note 37 CFR 1.9, 1.27, 1.28).

\$

SUBTOTAL =

\$ 914.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30
months from the earliest claimed priority date (37 CFR 1.492(f)).

\$

TOTAL NATIONAL FEE =

\$ 914.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property -

\$

TOTAL FEES ENCLOSED =

\$ 914.00

Amount to be:	\$
refunded	
charged	\$

a. ☒ A check in the amount of \$ 914. to cover the above fees is enclosed.

Check No. 1924

b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 15-0700. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

OSTROLENK, FABER, GERB & SOFFEN, LLP
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New York, NY 10036-8403

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SIGNATURE

Robert C. Faber

NAME

24,322

REGISTRATION NUMBER

D200131

Serial or Patent No.: _____ OFGS File No. _____
Filing or Issue Date: _____
Applicant or Patentee: _____
For: _____

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
37 CFR 1.9(f) and 1.27(c) - SMALL BUSINESS CONCERN

I hereby declare that with regard to the small business concern identified below I am
☐ the owner of the small business concern
☒ an official of the small business concern empowered to act on behalf of same
NAME OF CONCERN: FLYTEC AG Switzerland
ADDRESS OF CONCERN: Ebenaustr. 89 - CH-6048 Horw

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 1.21.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under 35 USC §41(a) and (b) in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns the affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled

by inventor(s) _____ described in

☐ U.S. Patent Application filed herewith
☐ U.S. Patent Application Serial No. _____ filed _____
☐ U.S. Patent No. _____ issued _____

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having the rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a non-profit organization under 37 CFR 1.9(e). *NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. 37 CFR 1.27.

NAME: _____

ADDRESS: _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NON-PROFIT ORGANIZATION

NAME: _____

ADDRESS: _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NON-PROFIT ORGANIZATION

I acknowledge the duty to file in this patent application or patent, notification of any change of status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. 37 CFR 1.29(b).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC §1001, and that such willful false statements may jeopardize the validity of the patent application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Carmenzind Lorenz (CEO)

ADDRESS OF PERSON SIGNING: Ramberggrain 4, CH-6004 Wetzern

SIGNATURE: J. Carmenzind DATE: 11.20.00

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P/543-103

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

New York, New York

Lorenz CAMENZIND et al

Date: November 3, 2000

Serial No.:

Group Art Unit:

Filed:

Examiner:

For: MULTIFUNCTION TOOL

Asst. Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination, please amend the application as follows:

IN THE AMENDED CLAIMS:

Please amend claims 3-13, 15, 16, 18 and 20-23 as follows.

Claim 3, line 1, change "one of the claims 1 or 2" to --claim 1--.

Claim 4, line 1, change "one of the claims 1 to 3" to --claim 1--.

Claim 5, line 1, change "one of the claims 1 to 4" to --claim 1--.

Claim 6, line 1, change "one of the claims 1 to 5" to --claim 1--.

Claim 7, line 1, change "one of the claims 1 to 6" to --claim 1--.

Claim 8, line 1, change "one of the claims 1 to 7" to --claim 1--.

Claim 9, line 1, change "one of the claims 2 to 7" to --claim 2--.

Claim 10, line 1, change "one of the claims 2 to 8" to --claim 2--.

Claim 11, line 1, change "one of the claims 1 to 10" to --claim 1--.

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Claim 12, line 1, change "one of the claims 1 to 11" to --claim 1--.

Claim 13, line 1, change "one of the claims 1 to 12" to --claim 1--.

Claim 15, line 1, change "one of the claims 1 to 14" to --claim 1--.

Claim 16, line 1, change "one of the claims 2 to 15" to --claim 2--.

Claim 18, line 1, change "one of the claims 1 to 16" to --claim 1--.

Claim 20, line 1, change "one of the claims 1 to 19" to --claim 1--.

Claim 21, line 1, change "one of the claims 1 to 20" to --claim 1--.

Claim 22, line 1, change "one of the claims 1 to 21" to --claim 1--.

Claim 23, line 1, change "one of the claims 1 to 22" to --claim 1--.

REMARKS

This Preliminary Amendment is submitted to change the multiple dependent claims to single dependent claims in order to reduce the government filing fee.

EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee (mail label #EL075478430US) in an envelope addressed to: Asst. Commissioner for Patents, Washington, D C. 20231, on November 3, 2000:

Dorothy Jenkins

Name of Person Mailing Correspondence

Dorothy Jenkins

Signature

November 3, 2000

Date of Signature

Respectfully submitted,

Robert C. Faber

Robert C. Faber

Registration No.: 24,322

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Multifunction tool

The present invention relates to a multifunctional tool such as a pocket knife, pliers, a clamp and similar, specifically suitable for leisure time sport, expeditions, for handymen, for the military service and similar.

The time, in which the pocket knife or other hand tools have merely been used as pure tools has past since a long time. The longer the more further functions are added to the pocket knife, in these days, for instance, pocket knives are offered which can be used as multifunctional tools and domestic appliances, respectively. Thus, pocket knives include besides the knife-blades proper scissors, nail files, tooth picks, saws, etc.

Besides this, pocket knives and other tools include as of late integrally also flash lights and also pocket knives are even offered which contain integrally a watch in one of the two covers.

By the DE 3607363 a screwing tool such as specifically a torque meter screw driver is known, at which various tool inserts can be mounted in one handle. It is, thereby, always a matter of screwing tools, i.e. tools with one and the same function. This tool does indeed include additionally a measuring sensor for a determining of the torque generated in the tool, however, for an evaluation and display of the measured value an electrical signal must be transmitted to a extern arranged converter and display device, wherewith the total arrangement can hardly be used as easily manageable hand tool.

In the US 4 854 045 a pocket knife is proposed which can be provided modularly differently by means of various units. Modules can be here connected to each other in plugged in manner for instance by means of a dove tail like recess. By means of electrical connecting contacts it is possible to arrange in place of pure knife containing

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modules also electronic tools such as for instance a miniature radio. The proposed pocket knife can in no way be understood as multifunctional tool or household appliance, respectively, in the sense of the present invention.

The object of the present invention is now to broaden the functionality of a pocket knife or generally of a hand tool to a so called multifunctional tool. This specifically because hand tools are carried along by a great many of persons in a multitude of situations of their life.

In accordance with the invention it is now proposed to arrange integrally in a multifunctional tool, such as a hand tool, such as for instance a multifunctional pocket knife also measuring and/or entering and display devices which serve for the measuring and/or entering and display devices which serve for the measuring and/or entering and displaying of a physical value.

It is proposed to arrange in or at the tool, such as a pocket knife at least one of the following exemplary measuring and display devices:

Altitude indicator, compass, barometer, thermometer, hygrometer, anemometer, speed indicator, a balance and/or a satellite navigation device.

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The electrical supply of the measuring and display device can be accomplished either by a battery or, however, by a solar cell. Specifically when using a battery it is advantageous if a switch on or switch off member is provided, by means of which the measuring and display device can be by demand switched on and again be switched off, respectively. Further, it is also possible to foresee a automatic switching off which is activated after a certain time after a switching on or a last changing, respectively, by means of the menu device

in case that a scale device is arranged in the tool suggested in accordance with the invention, such may be a spring scale which can be pulled out or be swung out, or it may be a weighing cell responding to pressure, which is located in the casing or can be swung out.

In the following, the invention will now be exemplary additionally explained by reference to the appended drawings.

There is illustrated in:

Fig. 1 in a perspective view a pocket knife equipped in accordance with the invention,

Fig. 2 a further variant of the embodiment of a pocket knife in accordance with the invention.

Fig. 3 a specific arrangement of a temperature sensor at a swung out awl of a pocket knife in accordance with the invention.

Fig. 4, illustrated schematically, various current and data connection and transmission, respectively, members between two pocket knife cover plates.

Fig 5 schematically, swung out, a weighing device,

Fig. 7 again a further arrangement of a weighing cell in a pocket knife

and 8b each a further variant of a embodiment of a pocket knife in accordance with the invention, including a cover which can be mounted in a again removable manner, containing at least in part the measuring and display device, and

Figure 1 illustrates a multifunctional tool in accordance with invention in form of a pocket knife 1, including various mechanical function devices, such as for instance a knife blade 2 which can be swung out, scissors 3 which can be swung out, a rasp 4 which can be swung out, respectively. The pocket knife is covered at both sides by cover plates 6 and 7, which as a rule are made of a plastic material, which however can obviously also be made of wood or metal. The pocket knife is held together by pins or locking bolts 9 and 10 located at its respective ends.

In the upper cover 6 now, a temperature sensor is for instance integrally arranged in the casing, for a measuring of the ambient temperature. The measured temperature signal is converted by a not illustrated converter and microprocessor arranged integrally in the casing 6 into the corresponding physical temperature value, and the in this way determined signal in degrees Celsius is displayed in the display 14. Such is thereby preferably a so called LCD-display.

Preferably, several measuring and display units are arranged for instance in the casing 6 whereby obviously a parts of the measuring sensors may also be arranged in the casing 7. Because, however, due to reasons of space, as a rule only one display 14 is foreseen.

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it conclusively is necessary that it is possible to switch between various displays, which may for instance be accomplished by means of a menu device. In order to operate the menu device a pressure sensor is arranged at the illustrated example, which for instance is again arranged in the casing 1 under the illustrated Swiss cross. By a depressing of the "Swiss cross" 16 it is thus possible to switch from the illustrated temperature measuring to the display of the measured air pressure. Additionally it is also possible that for instance upon a prolonged depressing the display switches automatically off, and then for instance the time is displayed. Only after a further short depressing a physical value is again displayed in the display 14.

Figure 2 illustrates a further embodiment of a multifunctional tool, such as a pocket knife, in a kind which finds use predominantly in the Anglo-Saxon area. Various mechanical tools are arranged in the pocket knife 31 in a U-shaped casing, which can be swung out around a locking pin or a pivot pin 35, respectively, such as the swung out knife 4 illustrated in Fig. 2. In order to arrange this swung out knife blade 4 fastened in the swung out position a corresponding cover 33 is preferably plugged onto the U-shaped casing, which in order to pivot the knife back can again be removed. This cover can either be completely removable or may also be pivotally mounted to the U-shaped casing to pivot about a further axis. Analogue to Fig. 1 a display 14 is also illustrated in Fig. 2 laterally in the U-shaped casing, in which again the measured physical values can be displayed. Obviously, this display can also be arranged in the area of the U-leg surface of the casing or even in the cover 33. At the illustration according to Fig. 2 the task is primarily to show that the present invention is not restricted to conventional pocket knives, such as for instance used in Western Europe. Such as already mentioned above, the present invention is basically suitable for any kind of multifunctional tools, to which also the most various designs of pocket knives belong.

Figure 3 illustrates a specific embodiment variant of the arranging of a temperature sensor 39 at the tip of a awl 37, whereby Fig. 3 illustrates the awl in a swung out state. Such a temperature sensor can be used for example to measure during grilling the

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temperature inside of meat in order to see how far the roasting and cooking process has advanced.

Specifically in the case where a plurality of different measuring sensors and possibly also in both covers displays are foreseen it is necessary to arrange in both covers 6 and 7 corresponding measuring sensors, circuits, microchips and similar. Thus it is, however, also important that a current and also a data exchange, as well, can take place between the two covers 6 and 7 which may proceed for instance via the two locking pins 9. It is, however, also possible to arrange between the two locking plates 6 and 7 for instance at the end area a additional cover or connecting plate 43, for the transmission of data and the supply of current. From time to time pocket knives are provided with supporting brackets such to for instance mount a pocket knife to a supporting chain. These supporting brackets can again serve for a transmitting of data and the supply of current.

Figure 5 illustrates simplified a swung out weighing element 52 onto which a weight can be hung.

Figure 6 illustrates a mounting ring 53 at an end area, which at the one hand can serve for a mounting of the pocket knife 1 to a necklace or however again for the weighing of articles.

Figure illustrates a pocket knife 1 in which a weighing cell 55 responding to pressure is arranged in one of the two covers. Thus, the pocket knife 1 may be placed onto a support 52 and a article 57 to be weighed may be placed onto the pocket knife. Because in the illustrated illustration in Fig. 7 no display is visible it makes sense to store the measured value such that the measured weight becomes visible upon a removing of the article 57.

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In each of the Figs. 8a and 8b a further pocket knife according to the invention similar to the pocket knife illustrated in Fig. 2 is illustrated, again having a cover mounted removable to the pocket knife.

Fig. 3 illustrates in perspective a pocket knife 61 onto which a cover 63 can be plugged by means of recesses 64 in the pocket knife and corresponding plugging pins 65 in the cover. The plug connection can be such that upon a plugging the pins 65 engage the recesses 64 such that a firm connection is produced. Quite obviously snap on connections can be chosen in place of plug in connections, a screw connection or even a adhering connection, by means of a so called velcro fastener

Again, a display 67 can be recognized in the cover 63 and – now additionally – a interface area 69 in order to for instance transmit data stored in the display and measuring device to a different apparatus, such as for instance a computer. In this way it is possible to store over a prolonged time data for instance in the cover 63 in a storage medium foreseen in same and to transmit these data at a later date by plugging a cable into the socket 69. By the placing of the display and measuring device in a cover 63 this storing of data and later transmitting to a evaluation device such as for instance a PC is simplified in that this cover 63 can be removed from the tool such as the pocket knife 61. In this way it is for instance possible to give such covers 63 to various persons which own a pocket knife of the kind illustrated in Fig 8a and to collect these covers after a certain time. It is, thereby, obviously possible to code these covers 63 or to have these covers 63 coded automatically coded when plugging onto the knife 61. After the collecting the diverse stored data can be transmitted to a PC and evaluated in same. As an exemplary application attention shall be drawn to the measuring of radioactive radiation.

Such separate covers are also suitable to store data for an entrance control, i.e. for so – called "Access-Control". Such a cover can accordingly provided for instance with a ski

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pass or any other signal in order to allow access to any institution. Obviously this "Access-Control" member may also be arranged integrally in the tool itself.

A further example consists in the arranging of a so called ELT (=Emergency Localisation Transmitter) whereby by means of an emitted signal a person for instance at a emergency can be localized.

Similarly, a further similar embodiment variant of the pocket knife as shown in Fig. 7 is illustrated in Fig. 8b, similar in that here a cover 73 can be plugged onto a pocket knife 71 by means of pins 76 and corresponding recesses 75. It is, thereby, for instance possible that the pins 76 can be depressed such that the cover can easily be removed from the pocket knife 71. Again, a display 77 can be recognized and now, different from the embodiment in Fig. 8, a infrared sensor 79 in order to for instance transmit data by means of infrared or other suitable wireless transmitting techniques to a data storing or evaluating, respectively, medium, such as for instance a PC. Finally recognizable is a menu selecting switch device 78 in order to switch between different measuring and display menus. It is not necessary to enter further into the kind of the functioning of the pocket knife illustrated in Fig. 8b because it is analogue to the one of the tool illustrated in Fig. 8a. It shall be mentioned merely that the connection area for data logger function foreseen in Fig. 8a allows a wireless transmitting of data such as for instance inductive, without any visible contacts, capacitatively or purely telemetrically i.e. via a wireless frequency. Obviously it is also possible to arrange at the cover housing, such as by the way also integrally at the pocket knife itself a antenna which can be plugged in or screwed on in order to transmit data.

In Fig. 9, finally, a further multifunctional tool 81 is illustrated, containing for instance two legs of pliers 83 which can be pivoted outwards, which each can be swung into a tool leg 82 and 83, respectively pivotally around the axis 85. The two tool legs 82 and 84 themselves can obviously also be pivoted around the axis 85 towards each other in order to form a compact, easily storable or transportable tool. Again illustrated in the

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two legs 82 and 84 are a display 87 and a connection socket 89, as well which serves as the interface area for the transmission of data. All matters and display and measuring, respectively, devices described and illustrated in the proceeding Figures 1 to 8 can obviously be arranged and integrates, respectively, in a tool which corresponds to the one illustrated in Fig. 9. Fig. 9 serves merely to illustrate that the present invention is by no means restricted to pocket knives, but that the arranging of the described inventive display and measuring devices and of the evaluation elements belonging thereto may be arranged in any kind of tool, such as specifically a manual tool.

The multifunctional tool illustrated in Figs. 1 to 9 in form of pocket knives and pliers are obviously merely examples which may be changed, modified or supplemented with further elements in any arbitrary way. In this way it is obviously possible to arrange besides the mentioned measuring and display devices if needed further devices such as for instance a anemometer which can be swung out.

Furthermore, all tools and also measuring cells in the examples of the Figures 1 to 9 are described or illustrated, respectively, as arranged to possibly be swung out; obviously these tools and measuring devices may also be arranged to be able to be moved or slid out in the tool.

The tool or manual tool, respectively., proposed in accordance with the invention, such as specifically pocket knife, is specifically suitable for activities in sports, such as for instance sailing, for mountain sports, kinds of flying sports, diving, etc. But it is also specifically suitable for expeditions, in the military field and also for handymen and specific professional activities.

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Patent claims

1. Multifunctional tool (1, 61, 71.81), characterized by at least one measuring, entering and display device (12, 14, 67, 77, 87) for various physical measure values arranged integrally in or at the tool (1) or by several measuring, entering and display devices (12, 14, 67, 77, 87) for at least one physical measure value arranged integrally in or at the tool (1), and by one menu device by means of which it is possible to select the desired display among the various physical measure values.
2. Tool according to claim 1, characterized by at least
 - one measuring sensor for a measuring of a physical value and/or a entering member for a entering of a physical value,
 - a converter for converting the measured and/or entered value into a electrical signal,
 - a microprocessor for a converting of the electrical signal into a standardized physical unit, as well as
 - a display of the measured and/or entered physical value in the corresponding unit.
3. Tool according to one of the claims 1 or 2, characterized in that at least one storing medium is foreseen for the storing of the measured and possibly converted, respectively measuring values.

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4. Tool according to one of the claims 1 to 3, characterized in that the measuring and display device (12, 14, 67, 77, 87) is a altitude measuring device, compass, barometer, thermometer, hygrometer, speed measuring device, anemometer, a scale, a measuring device for radioactive radiation and /or satellite navigation device.
5. Tool according to one of the claims 1 to 4, characterized in that a so called menu circuit (16, 78) is foreseen in order to activate in case of a plurality of measuring devices the respective measuring and displaying of a given desired physical value.
6. Tool according to one of the claims 1 to 5, characterized in that the display (14, 67, 77, 87) is a so called LCD (Liquid Crystal Display) display
7. Tool according to one of the claims 1 to 6, characterized in that further a watch and/or a flash light is arranged integrally in a tool casing, whereby preferably the time display is located at or in, respectively the display for the physical value.
8. Tool according to one of the claims 1 to 7, characterized in that the measuring and display device can be switched on or off, whereby preferably the switching off occurs automatically after a certain preset time.
9. Tool according to one of the claims 2 to 7, characterized in that a weighing device is arranged to be able to be pulled out or swung out of the pocket knife.

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10. Tool according to one of the claims 2 to 8, characterized in that a awl (37) is foreseen on the tip of which a temperature feeler (39) is located, for instance in order to measure the temperature inside of meat during a grilling in order to determine how far the roasting or cooking process has advanced.
11. Tool according to one of the claims 1 to 10, characterized in that a pressure sensor (16) for operating the menu device is foreseen.
12. Tool according to one of the claims 1 to 11, characterized in that the power supply for the measuring and display device proceeds by means of a battery and/or of a solar cell.
13. Tool according to one of the claims 1 to 12, characterized in that a interface (69, 79, 89) is foreseen in or at the tool in order to input data into the measuring and display device and to transmit data from same, respectively.
14. Tool according to 13, characterized in that the interface is suitable for the transmission of data by means of a cable transmission as well as for the data transfer for the wireless data transfer, such as optically, by wireless, etc.
15. Tool according to one of the claims 1 to 14, characterized in that the measuring and display device is releasable arranged at the tool, e.g. by means of a snap on, screwed, plugged, adhering or clamped connection.

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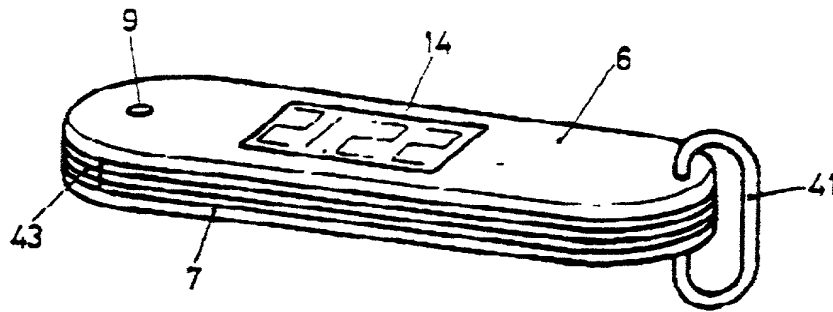


FIG. 4

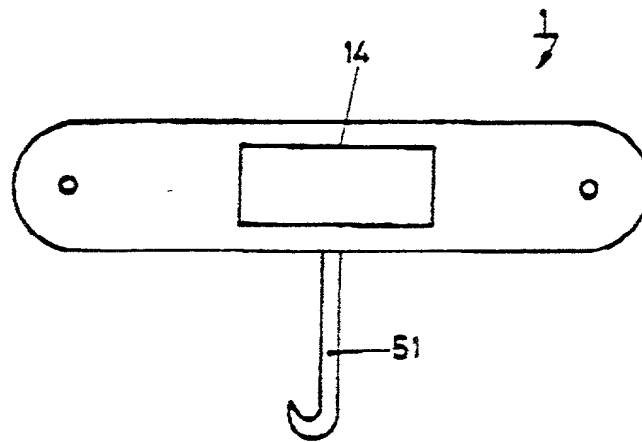


FIG. 5

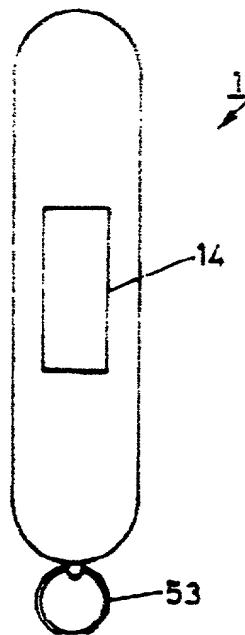


FIG. 6

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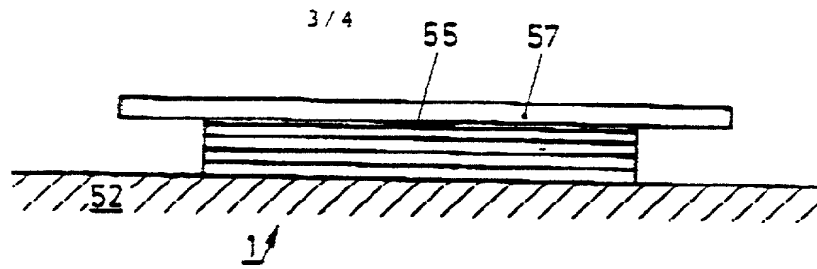
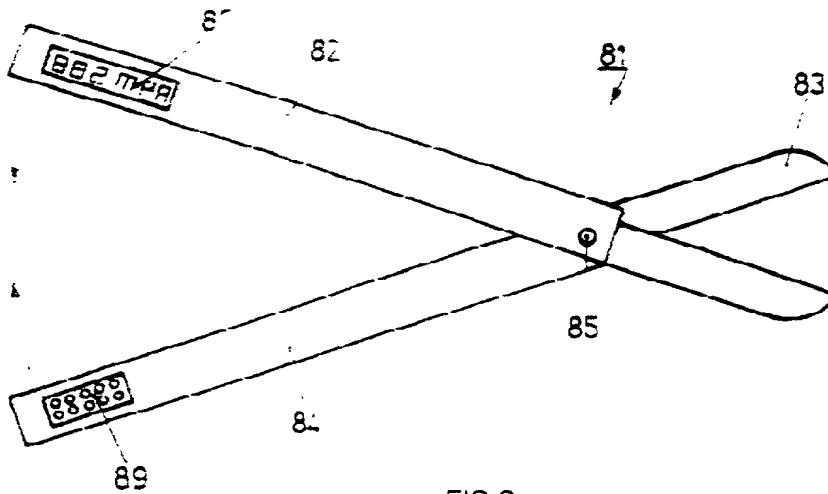
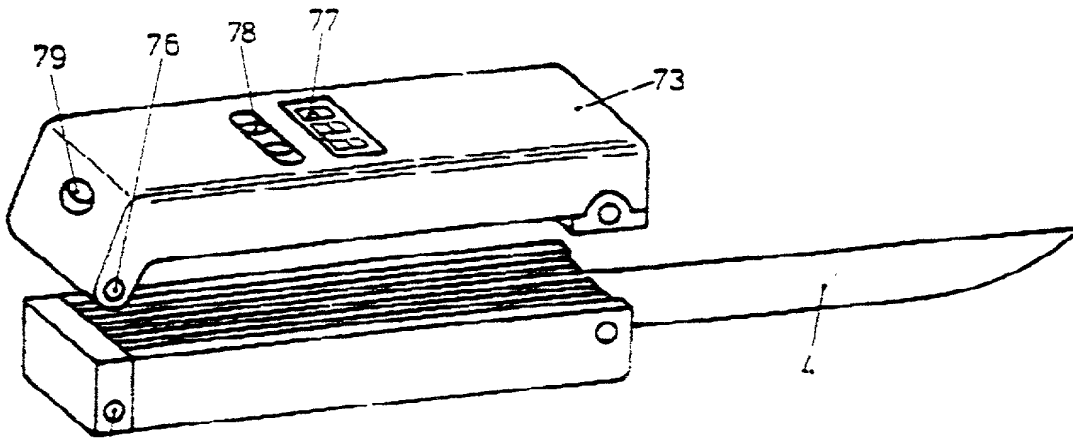
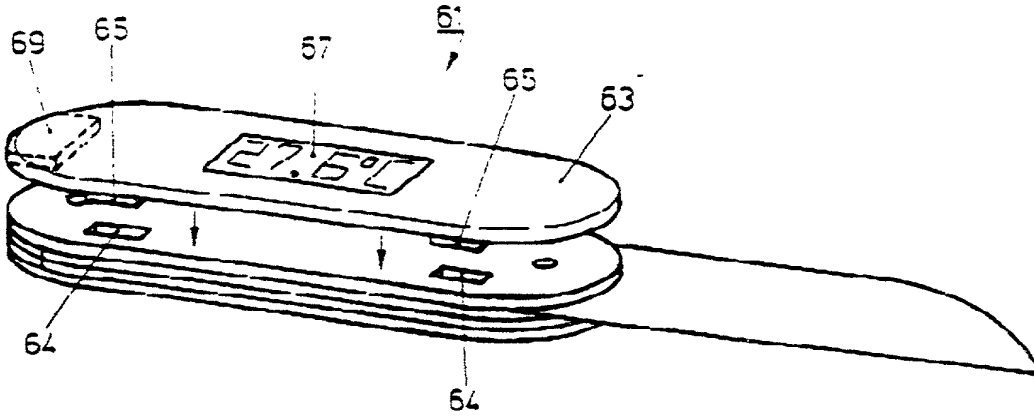


FIG. 7

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UNITED STATES OF AMERICA COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION		OFGS FILE NO P/543-103	
As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named) of the subject matter which is claimed and for which a patent is sought on the invention entitled: MULTIFUNCTION TOOL			
the specification of which is attached hereto, unless the following box is checked: <input checked="" type="checkbox"/> was filed on <u>4 May 1999</u> as United States patent Application Number or PCT International patent application number <u>PCT/CH99/00184</u> and was amended on _____ (if any)			
I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56. I hereby claim priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate or United States provisional application(s) listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed: Prior Foreign or Provisional Application(s)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. 119
Switzerland	1025/98	6 May 1998	YES <u>X</u> NO ____
			YES ____ NO ____
			YES ____ NO ____
I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.			
UNITED STATES APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)	
I hereby appoint customer no. 2352 OSTROLENK, FABER, GERB & SOFFEN, LLP, and the members of the firm, Samuel H. Weiner - Reg. No. 18,510; Jerome M. Berliner - Reg. No. 18,653; Robert C. Faber - Reg. No. 24,322; Edward A. Meilman - Reg. No. 24,735; Stanley H. Lieberstein - Reg. No. 22,400; Steven I. Weisburd - Reg. No. 27,409; Max Moskowitz - Reg. No. 30,576; Stephen A. Soffen - Reg. No. 31,063; James A. Finder - Reg. No. 30,173; William O. Gray, III - Reg. No. 30,944; Louis C. Dymlich - Reg. No. 30,625 and Douglas A. Muro - Reg. No. 21,642, as attorneys with full power of substitution and revocation to prosecute this application, to transact all business in the Patent & Trademark Office connected therewith and to receive all correspondence SEND CORRESPONDENCE TO: OSTROLENK, FABER, GERB & SOFFEN, LLP DIRECT TELEPHONE CALLS TO: (212) 382-0700 1180 AVENUE OF THE AMERICAS NEW YORK, NEW YORK 10036-8403 <u>CUSTOMER NO. 2352</u>			
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			
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RESIDENCE (City and either State or Foreign Country)		COUNTRY OF CITIZENSHIP	
POST OFFICE ADDRESS			

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